

coarser shale, and consist chiefly of large teeth and vertebræ of a species of *Holoptychus* and rays of *Gyracanthus*.

The yard coal shale is still less fruitful than either of the other seams, and has yielded only a few small teeth of *Holoptychus*, *Ctenoptychus*, and some other unimportant fragments.

On comparing these fossils with the *Ichthyolites* which he has found in Lancashire, the author has ascertained that many are identical, but that others differ. The species of *Diplodus*, *Ctenoptychus*, *Megalichthys*, *Gyracanthus*, one of *Holoptychus*? and *Platysomus*? exactly correspond in each district. In the Lancashire field he has found remains of *Ctenoptychus apicalis* and *C. denticulatus*, which he has not noticed in the Yorkshire; and he is inclined to think, that the former field is characterized, if there be a difference, by the greater prevalence of *Lepidoid* fishes, and the latter by those of the *Sauroid* family.

The *Ichthyolites* occur chiefly in highly bituminous shales, with the exception of the *Ardwick* limestone, and most abundantly where it is finely grained. They are rarely associated with any quantity of vegetable remains; and this disposition of the two kingdoms, Mr. Williamson is of opinion may assist in determining the conditions under which the coal-measures were deposited. The *Ichthyolites* also are in general more common in the roof than the floor of the coal; but in the *cannel-seams* of *Wigan* in Lancashire, and in the thin seams connected with the limestones at *Ardwick*, they are most abundant in the floor. They are rarely found in the coal itself, and the instances in which they have been met with in that position by the author, have been chiefly in the *Middleton* colliery.

The manner in which *Ichthyolites* are associated with other remains, Mr. Williamson states, is well worthy of attention. At *Burdiehouse* they occur in the midst of *Unios*, *Cyprides*, and *Microconchus carbonarius*; at *Colebrook Dale*, with species of *Orbicula*, *Trochus*, *Nautilus*, *Orthoceras*, and *Conularia*; in the lower measures of Lancashire in beds nearly associated with those containing *Goniatites Listeri* and *Pecten papyraceus*; in the higher measures of Lancashire and in Yorkshire, with *Unionidæ* and *Entomostraca*; at *Middleton*, with *Lingulæ*; at the top of the series in Lancashire and Derbyshire, with *Mytili*.

TWEEDSIDE PHYSICAL AND ANTIQUARIAN SOCIETY.

The stated quarterly Meeting of the Society was held on November 18, in the Library room, *Kelso*. The Duke of *Roxburgh* presided; and the meeting was very numerous and encouraging, great

coarser shale, and consist chiefly of large teeth and vertebræ of a species of *Holoptychus* and rays of *Gyracanthus*.

The yard coal shale is still less fruitful than either of the other seams, and has yielded only a few small teeth of *Holoptychus*, *Ctenoptychus*, and some other unimportant fragments.

On comparing these fossils with the *Ichthyolites* which he has found in Lancashire, the author has ascertained that many are identical, but that others differ. The species of *Diplodus*, *Ctenoptychus*, *Megalichthys*, *Gyracanthus*, one of *Holoptychus*? and *Platysomus*? exactly correspond in each district. In the Lancashire field he has found remains of *Ctenoptychus apicalis* and *C. denticulatus*, which he has not noticed in the Yorkshire; and he is inclined to think, that the former field is characterized, if there be a difference, by the greater prevalence of *Lepidoid* fishes, and the latter by those of the *Sauroid* family.

The *Ichthyolites* occur chiefly in highly bituminous shales, with the exception of the *Ardwick* limestone, and most abundantly where it is finely grained. They are rarely associated with any quantity of vegetable remains; and this disposition of the two kingdoms, Mr. Williamson is of opinion may assist in determining the conditions under which the coal-measures were deposited. The *Ichthyolites* also are in general more common in the roof than the floor of the coal; but in the *cannel-seams* of *Wigan* in Lancashire, and in the thin seams connected with the limestones at *Ardwick*, they are most abundant in the floor. They are rarely found in the coal itself, and the instances in which they have been met with in that position by the author, have been chiefly in the *Middleton* colliery.

The manner in which *Ichthyolites* are associated with other remains, Mr. Williamson states, is well worthy of attention. At *Burdiehouse* they occur in the midst of *Unios*, *Cyprides*, and *Microconchus carbonarius*; at *Colebrook Dale*, with species of *Orbicula*, *Trochus*, *Nautilus*, *Orthoceras*, and *Conularia*; in the lower measures of Lancashire in beds nearly associated with those containing *Goniatites Listeri* and *Pecten papyraceus*; in the higher measures of Lancashire and in Yorkshire, with *Unionidæ* and *Entomostraca*; at *Middleton*, with *Lingulæ*; at the top of the series in Lancashire and Derbyshire, with *Mytili*.

TWEEDSIDE PHYSICAL AND ANTIQUARIAN SOCIETY.

The stated quarterly Meeting of the Society was held on November 18, in the Library room, *Kelso*. The Duke of *Roxburgh* presided; and the meeting was very numerous and encouraging, great

coarser shale, and consist chiefly of large teeth and vertebræ of a species of *Holoptychus* and rays of *Gyracanthus*.

The yard coal shale is still less fruitful than either of the other seams, and has yielded only a few small teeth of *Holoptychus*, *Ctenoptychus*, and some other unimportant fragments.

On comparing these fossils with the *Ichthyolites* which he has found in Lancashire, the author has ascertained that many are identical, but that others differ. The species of *Diplodus*, *Ctenoptychus*, *Megalichthys*, *Gyracanthus*, one of *Holoptychus*? and *Platysomus*? exactly correspond in each district. In the Lancashire field he has found remains of *Ctenoptychus apicalis* and *C. denticulatus*, which he has not noticed in the Yorkshire; and he is inclined to think, that the former field is characterized, if there be a difference, by the greater prevalence of *Lepidoid* fishes, and the latter by those of the *Sauroid* family.

The *Ichthyolites* occur chiefly in highly bituminous shales, with the exception of the *Ardwick* limestone, and most abundantly where it is finely grained. They are rarely associated with any quantity of vegetable remains; and this disposition of the two kingdoms, Mr. Williamson is of opinion may assist in determining the conditions under which the coal-measures were deposited. The *Ichthyolites* also are in general more common in the roof than the floor of the coal; but in the *cannel-seams* of *Wigan* in Lancashire, and in the thin seams connected with the limestones at *Ardwick*, they are most abundant in the floor. They are rarely found in the coal itself, and the instances in which they have been met with in that position by the author, have been chiefly in the *Middleton* colliery.

The manner in which *Ichthyolites* are associated with other remains, Mr. Williamson states, is well worthy of attention. At *Burdiehouse* they occur in the midst of *Unios*, *Cyprides*, and *Microconchus carbonarius*; at *Colebrook Dale*, with species of *Orbicula*, *Trochus*, *Nautilus*, *Orthoceras*, and *Conularia*; in the lower measures of Lancashire in beds nearly associated with those containing *Goniatites Listeri* and *Pecten papyraceus*; in the higher measures of Lancashire and in Yorkshire, with *Unionidæ* and *Entomostraca*; at *Middleton*, with *Lingulæ*; at the top of the series in Lancashire and Derbyshire, with *Mytili*.

TWEEDSIDE PHYSICAL AND ANTIQUARIAN SOCIETY.

The stated quarterly Meeting of the Society was held on November 18, in the Library room, *Kelso*. The Duke of *Roxburgh* presided; and the meeting was very numerous and encouraging, great

accessions being made to the Museum. Besides those belonging to the class of Antiquities, books, and works of art, were numerous contributions in the department of Natural History, from Mr. Douglas, Mr. Dunlop, Astronomer at Paramata, (through Sir T. M. Brisbane, Bart.) from Mr. J. Blacket, Sidney, New South Wales.

Contributions to the Zoological department, several of them of great interest, were received from Dr. F. Douglas, and from Messrs. Wilkie, Beckwith, Yule, Smith, Black, Lockie, Stevenson, &c., &c. As the true value of the Museum must always lie in its collection of objects having a *local* interest, and as all contributions tending to illustrate the Natural History of the district must be deserving of especial attention, such are always received with gratitude.

It was announced to the meeting by Sir Thomas Brisbane, that Mr. Fergusson of Kelso had volunteered to keep a complete series of Meteorological observations at Kelso, for behoof of the Society, provided he were furnished with the necessary instruments; and that he (Sir Thomas Brisbane) had mentioned this to the Duke of Roxburgh, who had at once declared his willingness to supply these instruments to the Society at his own expense. Sir Thomas also made known his own intention of presenting an Astronomical Clock, to be placed in the new building when completed.

The Museum, and all that is connected with it, is now becoming an affair highly creditable to the district. The new building is in an advanced state, and its accommodation will be ample and appropriate. The friends of the Institution, at home and abroad, are daily becoming more numerous; its list of members is at present more full than at any time since its commencement: and it is receiving valuable donations from nearly every quarter of the globe.

The thanks of the Society were voted to the office-bearers for the past year; and particularly to Dr. Wilson, the secretary, and to Mr. Heckford the conservator of specimens for the Zoological department of the Museum.

ROYAL PHYSICAL SOCIETY OF EDINBURGH.

In the notice of Mr. E. Forbes's communication, p. 355, he is represented as maintaining that the cilia of the *Beroe* are not organs of motion. We have since learnt that the remarks which he made on this subject had a very different purport, namely, that the motions of the cilia were not sufficient of themselves to account for the movements of the animal, seeing that frequently when the *Beroe* or *Cydippe* lay still at the bottom of the vessel in which it was placed the cilia were in active motion.

accessions being made to the Museum. Besides those belonging to the class of Antiquities, books, and works of art, were numerous contributions in the department of Natural History, from Mr. Douglas, Mr. Dunlop, Astronomer at Paramata, (through Sir T. M. Brisbane, Bart.) from Mr. J. Blacket, Sidney, New South Wales.

Contributions to the Zoological department, several of them of great interest, were received from Dr. F. Douglas, and from Messrs. Wilkie, Beckwith, Yule, Smith, Black, Lockie, Stevenson, &c., &c. As the true value of the Museum must always lie in its collection of objects having a *local* interest, and as all contributions tending to illustrate the Natural History of the district must be deserving of especial attention, such are always received with gratitude.

It was announced to the meeting by Sir Thomas Brisbane, that Mr. Fergusson of Kelso had volunteered to keep a complete series of Meteorological observations at Kelso, for behoof of the Society, provided he were furnished with the necessary instruments; and that he (Sir Thomas Brisbane) had mentioned this to the Duke of Roxburgh, who had at once declared his willingness to supply these instruments to the Society at his own expense. Sir Thomas also made known his own intention of presenting an Astronomical Clock, to be placed in the new building when completed.

The Museum, and all that is connected with it, is now becoming an affair highly creditable to the district. The new building is in an advanced state, and its accommodation will be ample and appropriate. The friends of the Institution, at home and abroad, are daily becoming more numerous; its list of members is at present more full than at any time since its commencement: and it is receiving valuable donations from nearly every quarter of the globe.

The thanks of the Society were voted to the office-bearers for the past year; and particularly to Dr. Wilson, the secretary, and to Mr. Heckford the conservator of specimens for the Zoological department of the Museum.

ROYAL PHYSICAL SOCIETY OF EDINBURGH.

In the notice of Mr. E. Forbes's communication, p. 355, he is represented as maintaining that the cilia of the *Beroe* are not organs of motion. We have since learnt that the remarks which he made on this subject had a very different purport, namely, that the motions of the cilia were not sufficient of themselves to account for the movements of the animal, seeing that frequently when the *Beroe* or *Cydippe* lay still at the bottom of the vessel in which it was placed the cilia were in active motion.

accessions being made to the Museum. Besides those belonging to the class of Antiquities, books, and works of art, were numerous contributions in the department of Natural History, from Mr. Douglas, Mr. Dunlop, Astronomer at Paramata, (through Sir T. M. Brisbane, Bart.) from Mr. J. Blacket, Sidney, New South Wales.

Contributions to the Zoological department, several of them of great interest, were received from Dr. F. Douglas, and from Messrs. Wilkie, Beckwith, Yule, Smith, Black, Lockie, Stevenson, &c., &c. As the true value of the Museum must always lie in its collection of objects having a *local* interest, and as all contributions tending to illustrate the Natural History of the district must be deserving of especial attention, such are always received with gratitude.

It was announced to the meeting by Sir Thomas Brisbane, that Mr. Fergusson of Kelso had volunteered to keep a complete series of Meteorological observations at Kelso, for behoof of the Society, provided he were furnished with the necessary instruments; and that he (Sir Thomas Brisbane) had mentioned this to the Duke of Roxburgh, who had at once declared his willingness to supply these instruments to the Society at his own expense. Sir Thomas also made known his own intention of presenting an Astronomical Clock, to be placed in the new building when completed.

The Museum, and all that is connected with it, is now becoming an affair highly creditable to the district. The new building is in an advanced state, and its accommodation will be ample and appropriate. The friends of the Institution, at home and abroad, are daily becoming more numerous; its list of members is at present more full than at any time since its commencement: and it is receiving valuable donations from nearly every quarter of the globe.

The thanks of the Society were voted to the office-bearers for the past year; and particularly to Dr. Wilson, the secretary, and to Mr. Heckford the conservator of specimens for the Zoological department of the Museum.

ROYAL PHYSICAL SOCIETY OF EDINBURGH.

In the notice of Mr. E. Forbes's communication, p. 355, he is represented as maintaining that the cilia of the *Beroe* are not organs of motion. We have since learnt that the remarks which he made on this subject had a very different purport, namely, that the motions of the cilia were not sufficient of themselves to account for the movements of the animal, seeing that frequently when the *Beroe* or *Cydippe* lay still at the bottom of the vessel in which it was placed the cilia were in active motion.